

Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The non-final Office Action dated May 20, 2005, indicated that claims 1-19 are rejected under 35 U.S.C. § 102(b) over Daniels *et al.* (U.S. Patent No. 4,203,157); claims 1-20 are rejected under 35 U.S.C. § 112(2); and claim 20 would be allowable if rewritten to overcome the Section 112(2) rejection.

Applicant respectfully traverses each of the Section 112(2) rejections because the claims distinctly point out the subject matter of the present invention. Without further explanation, it would appear that the Examiner has misinterpreted the claims and attempts to rewrite the claims in a manner not disclosed in the instant Specification. Applicant addresses each of the claim rejections below.

With respect to the rejections of independent claims (claims 1, 18 and 19) where the Examiner asserts that the claims are mis-descriptive, Applicant respectfully traverses. The Office Action erroneously argues that (i) N needs to be greater than M if the multiplexer outputs a most significant bits (MSBs) partial sum, and (ii) that the selection data is a function of the MSB of the set of LSBs of the second, not first, binary operand.

Applicant submits that N need not necessarily be greater than M because the claimed invention permits this configuration, N equal to M. Thus, by definition, the scope of claimed invention permits for this situation.

The Office Action erroneously argues that N needs to be greater than M if the multiplexer outputs an MSB partial sum. The multiplexer can output an MSB partial sum whether N is greater than M, or N is equal to M. This situation can arise, for example, because the multiplexer can output an MSB partial sum whenever the multiplexer passes “a representative set of most-significant bits of the first binary operand”, as set forth in claim 1. Accordingly, the first-mentioned rationale “(i)” is flawed.

The Office Action erroneously argues that (ii) the selection data is a function of the MSB of the set of LSBs of the second, not the first, binary operand. The multiplexer can output an MSB partial sum whether N is greater than M, or N is equal to M. This situation can arise, for example, because the multiplexer can output an MSB partial sum whenever the multiplexer passes “an offset of a representative set of most-significant bits of the first

binary operand,” as set forth in claim 1. This aspect of the invention is supported, for instance, in the Specification at page 6, lines 5-13 (particularly the clause at page 6 lines 22-23). The Office Action does not explain the basis for its citation to Equation B at page 11; should this citation continued to be relied upon, Applicant requests further explanation. Accordingly, the second-mentioned rationale “(ii)” is flawed.

The Office Action also erroneously argues that claims 1 and 20 fail to recite an allegedly necessary 2’s complement format of the operands. By definition, the scope of the claimed invention is not limited *per se* by 2’s complement format. Moreover, in at least some of the supporting example embodiments, the claimed invention has been taught without restriction or mention of 2’s complement format of the operands. The Office Action does not explain the basis for either the belief that 2’s complement format of the operands would be necessary, or that the claimed invention should be limited to include any allegedly necessary aspect not already expressly set forth therein. Under 35 U.S.C. § 112(2), Applicant is required to distinctly claim the subject matter considered inventive and is not required to distinctly claim all aspects of any particular (unidentified) embodiment. Should this citation continued to be relied upon, Applicant requests adequate explanation including identification of the embodiment(s) allegedly requiring this 2’s complement format and an explanation of the basis for imposing such an aspect into the claimed invention. In view of the above comments, Applicant submits that the rejection of each of the independent claims is improper and the rejections should be withdrawn.

With respect to claim 3, Applicant traverses because the claim distinctly points out the subject matter of the present invention. The MPEP states that the failure to provide explicit antecedent basis for terms does not always render a claim indefinite, and if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. MPEP § 2173.05(e). A skilled artisan would recognize that the claimed most-significant bits partial sum would be calculated N-M. Notwithstanding, Applicant has amended the claim to remove the “N-M” adjective-term before the first use of most-significant bits and removed the article “the” from each type of MSBs partial sum calculation. Applicant submits that the amendment renders the rejection moot and accordingly requests that the rejection be withdrawn.

With respect to claims 11 and 12, Applicant has amended the claims to be consistent with claim 1 thereby rendering the rejection moot. The selection data being the most-significant bit of one of the representative sets of the first binary operand is also a function of the most-significant bit of the representative set of least-significant bits of the first binary operand. Applicant accordingly requests that the rejection be withdrawn.

With respect to claims 14 and 15, the Examiner asserts that claim 1 “requires signed binary numbers” without providing any explanation for such assertion. Applicant fails to recognize the Examiner’s rationale and notes that claim 1 does not include any such limitations. Moreover, at page 6, lines 24-25, the instant Specification discloses an embodiment where the operands are unsigned. Applicant accordingly requests that the rejection be withdrawn.

With respect to claims 16 and 17, the Examiner asserts that the claimed digital filtering circuit arrangement is inconsistent with claim 1 because claim 1 is “limited to an adder circuit.” Applicant fails to understand the Examiner’s rationale but notes that claim 1 is directed to a circuit arrangement that includes an adder and a multiplexer circuit and is in no way limited to an adder circuit. The arrangement of claim 1 is available for implementation as a digital filtering arrangement and Applicant accordingly requests that the rejection be withdrawn.

With respect to claim 20, Applicant appreciates the indication of allowability but traverses the Section 112(2) rejection. In addition to the discussion of claim 20 above, the Examiner fails to explain, and Applicant fails to recognize, why the Examiner asserts that the adder’s (N-M)th bit internal carry bit is the most significant bit of the N-M+1 partial sum. Applicant requests further explanation if the rejection is to be maintained. Applicant has also amended the preamble of claim 20 to be consistent with the body of the claim such that claim 20 is directed to an arrangement. Applicant accordingly requests that the rejection be withdrawn.

Applicant respectfully traverses the Section 102(b) rejection because the Office Action fails to present a reference that corresponds to the claimed invention. More specifically, the Office Action has cited a reference that appears to be unrelated to the claimed invention. The Office Action fails to identify any teachings in the cited ‘157 reference other than generally relying on the Abstract. For example, the Abstract fails to teach an adder including being adapted to add representative sets of least-significant bits

of both operands, as claimed. Moreover, the Office Action fails to identify a multiplexer circuit adapted to output a most-significant bits partial sum and fails to identify the selection data being a function of the MSB as claimed. Applicant fails to recognize any correspondence between the cited reference and the claimed invention. Further, the Office Action fail to even assert that any of the limitations of the dependent claims are taught by the '157 reference. Without a presentation of correspondence to each of the claimed limitations, the Section 102(b) rejection cannot be maintained. Applicant accordingly requests that the rejection be withdrawn.


Regarding the Preliminary Amendments, it is the understanding of the undersigned that only one substantive preliminary amendment has been submitted with respect to this application and that the preliminary amendment effected the same changes. If this is not the case, Applicant requests clarification.

With respect to the Information Disclosure Statement filed on December 15, 2003, it would appear from the Form 1449 attached to the instant Office Action that the Examiner has initialed both of the listed U.S. references (the '157 and the '698 references). Applicant requests that the Examiner also consider and acknowledge the European reference disclosed on the same Form 1449, EP 0 955 576, and return an initialed Form 1449 in accordance with the MPEP to Applicant.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Mr. Peter Zawilski, of Philips Corporation at (408) 474-9063.

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